

SHOES!

SHOES!

SPECIAL SALE

ALL

NEXT WEEK

AT

The Fair
 DRY GOODS, CLOTHING,
 SHOES, FURNISHING GOODS,
 CARPETS.

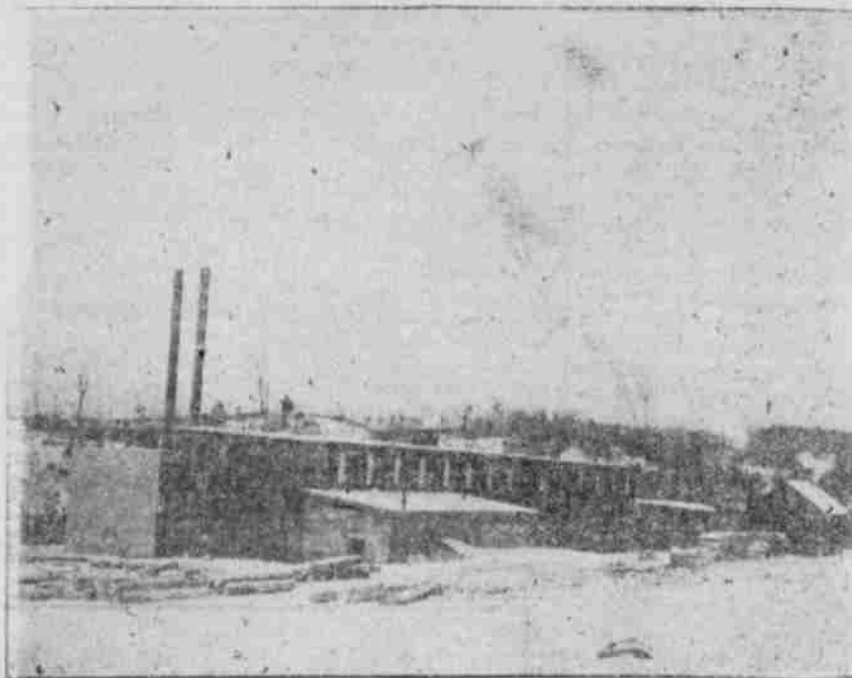
ONE OF THE LARGEST BUTTER DISH FACTORIES IN THE WORLD

The Crystal Falls Woodenware Company's Plant Among the Biggest of them—Operations Commenced.

We present herewith an excellent cut of the newly erected plant of the Crystal Falls Woodenware company. This plant has been in process of erection for the past six months and will begin next Monday morning to turn out butter dishes and clothes pins, the only articles manufactured thereat. The machinery has been working for several days getting timbered up and making up enough boxes to give the company a start when they set their ten butter dish

a e cut, shaped and stapled at the rate of about 40,000 dishes to a machine per day.

A word regarding these machines may not be amiss. They were invented by Frank E. Lucas, the general manager of the Crystal Falls Woodenware company and are the result of about 20 years of experience and practical work in the manufacture of butter dishes. Mr. Lucas was the first man to perfect an automatic butter dish machine, a feat which he accomplished many years ago in a little factory in



machines and six clothes pin machines going full blast.

Location

The location of the plant is a short distance north-east of the water works close to the Columbia mine branch of the C & N. W. railroad. The C. M. & St. P. will run a spur from the Tobin mine track to the factory as soon as the frost is out of the ground in the spring so that the company will have shipping facilities over both railroads, an opportunity that is a very material advantage in such a promiscuous distribution of goods as will be made by this factory. It also gives the company access to some of the finest belts of hardwood timber to be found in the state of Michigan. The Northwestern brings them within reach of the Brule River, Iron River and Elmwood districts to the west and the Balsam and Amasa districts to the north besides all of the territory in Florence and other counties to the south along the Menominee River. The St. Paul gives them an entrance to the excellent hardwood tracts to the north and along the D. S. S. & A. besides an opening into the Delta and Dickinson districts over the connections with the E. & L. S. Thus in railroad accommodations the new concern is well supplied.

The Butter Dish Department

The small lean-to building from which the skid-way projects contains a large sized, modern drag saw and several large tanks in which the logs are boiled preparatory to being put on the veneer cutter. The tank capacity is 50 cords of bolts cut to the proper length. The logs are hauled up to the sawing deck by means of a big bull-chain running between skids. The chain extends away out into the yard and a man with a cant hook rolls the logs off the skidways onto the chain. When they reach the sawing deck the bolter cuts them up into four foot lengths and they are dropped into the tanks at one end.

They are taken from the tank at the opposite end by means of a crane and swung directly into the veneer machine. This machine stands opposite a door which opens from the tank house into the main building at the further end. The Veneer machine is one of the largest, most powerful and latest designed that the Coe & Wilks people turned out of their shop and was made especially for the Crystal Falls factory.

After being treated on the veneer machine the strips of veneer are trucked to about the centre of the main building where there is a power propelled elevator that hoists truck and all to the second floor. They are taken to the dish machines which stand in a row along the far end of the main, or L shaped building. There are ten of these machines, the best butter dish machine in the world. The strips of veneer are fed into the machine by girls, where the dishes

Cleveland, Ohio. His first effort was an exceedingly crude affair when compared with the present machine. However, he kept improving on the mechanism and in the early nineties perfected the present machine when, with his brother, H. P. Lucas, of Escanaba, they started the manufacture of butter dishes in a modest way at Racine Wis.

A few years later they decided to move nearer the timber belt and came to Escanaba where they formed the nucleus of the present mammoth Escanaba Woodenware plant. Mr. Frank Lucas had immediate charge of the Escanaba works and brought the institution to a high stage of efficiency and this one plant was, last year, furnishing two-thirds of the butter dishes used in the United States. The Escanaba people had 18 machines going before the late fire. During his years at Escanaba, Mr. Lucas made a close study of his machines with the result that he devised several improvements which place the machines in the Crystal Falls factory considerably in the lead of the machines heretofore used from an economically productive standpoint.

As soon as the dish is stapled it is released from the machine and falls of its own weight onto a small belt conveyor that runs from the machine to a hopper at the top of a slide leading down to the dry kiln. The dishes fall of their own weight into this hopper and are conveyed down to the dry kiln, which is also a special arrangement of Mr. Lucas. Twenty minutes is the required time that a dish needs in the kiln to be thoroughly dried and ready for the market and as they pass over the last conveyor they are dumped out onto the packing table which is located on the lower floor directly beneath the dish machines. Here they are gathered by girls, counted and packed into crates and carted to the warehouse which in the last section of the building to the far end as shown in the picture.

Besides the machines used in the direct manufacture of the dishes themselves there are several other machines and many employees occupied in manufacturing the boxes, etc. that the dishes are packed in. Principal among these machines is a stove cutter used to cut the staves for the boxes, a heading machine for cutting ends, several saws, a planer, two automatic nailing machines and a printing press for stamping the boxes. Mr. Lucas aimed to get a thoroughly up to date factory in every item so as to be able to produce dishes at a less cost than any factory in the world and in this he has been successful.

Clothes Pin Department

The clothes pins timber goes through an altogether different process. After passing the drag saw the same as the dish logs, the short bolts are conveyed to saws standing in the front end of the building where the bolts are cut up

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The undersigned is now ready to furnish the people of Crystal Falls with tailor made Garments, made in the latest styles and with the very best of workmanship. We guarantee all our work. I have some of the best tailors in the country in my employ and feel certain that I can suit you in any garment you may desire.

Spring Samples Now On Display.

Suits range in prices from \$20 to \$35.

J. R. Stolberg.

Temple Building.

into the proper strips for clothespin strips. There are a number of these saws and a couple of them are especial designs of Mr. Lucas whereby the output of the machine is increased materially and the timber can be handled to better advantage.

The strips are then passed back to the tank and from there and automatic elevator takes them to the second story where they pass through the necessary preparatory process. These machines are located in the front end of the building so that there is no extra handling of the material. From these machines it goes to the clothes pin machines which are arranged in a row along the perpendicular stem of the L shaped building. There are six of these machines, making the factory of the largest in this line in the world. After treatment in these machines the pins go into the tumbling barrels which are located at the end of the row of machines. In these barrels the pins are smoothed and dried and are dumped to the floor below where they are crated and then sent to the warehouse.

The Power Plant.

Power and steam for this factory is furnished by two 125 h. p. boilers and two engines, one a 175 h. p. Harrier-Corliss and a 50 h. p. slide valve. The latter is used to run the dynamo and the blower fans for heating the kilns. By this dual arrangement the large engine may be shut down when the machinery stops while the small one is continued in operation to dry out the day's work and clear the decks

for the morrow. The boilers are located in the brick building seen on the left of the main building. It is 40x40 feet in dimension and totally disconnected from the other buildings excepting by means of the lead pipes and the elevator that carries in the fuel. Every precaution has been taken to eliminate the danger of fire. The boilers have extra settings to enable them to make steam fast. Refuse from the factory is used altogether.

This refuse is taken to the boiler room where it is used as fuel. A conveyor of the refuse is taken to the end of the building where it is dumped into a room which is used for the refuse. The refuse is then taken to the boiler room where it is used as fuel. A conveyor of the refuse is taken to the end of the building where it is dumped into a room which is used for the refuse. The refuse is then taken to the boiler room where it is used as fuel.

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The dimensions of the main building are 300x40 along the greater portion but at the end it jogs out to 60 forming

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MORIARTY A BUSY MAN.

Senator Moriarty, of the Marquette district, is one of the busiest members of the present legislature and the various bills that he has introduced will give the senators and representatives much food for thought when they come up for consideration.

Probably Mr. Moriarty's experience on the board of Marquette branch prison control is to be thanked, in part at least, for two measures which he introduced late last week. One of them calls for an extension of time for hearing of cases which are before the pardon board from three to six months and the other provides for an extra penalty for convicts who escape from confinement during their term of sentence.

Another of Mr. Moriarty's bills is designed to reaffirm the old arithmetic principle that 128 cubic feet make a cord. It seems that there are in this senatorial district some tanneries and factories whose managers are trying to convince farmers and bark and wood sellers that their cords should be determined by weight. It is said that working wood means smaller prices for the men who get it out, who thus want to be paid on the 128 cubic feet to the cord basis.

Mr. Moriarty has still another measure before the senate, which would work quite a revolution in the manner of compensating members of the boards of control of the various state institutions. At present they are allowed simply their expenses, but the senate from this district proposes that each meeting they attend they receive an average better than the most instances of the compensation of something like an ordinary year.

He also introduced bills to compel telegraph and express companies to charge the same rates for telegraphic messages and articles sent by express to points in the upper peninsula as they charge from here to points below. He says he pays 25 cents to telegraph from Lansing to Crystal Falls, but is obliged to put up 45 cents to send a message from there to the state capital. The express rate is about 60 per cent higher for goods sent north than from upper peninsula points to points in the lower peninsula he also claims.

Moriarty is credited with being the man who was mainly instrumental in securing Tom Navin's appointment to the board of control for the Jackson penitentiary. In this connection the Detroit Free Press says, after commenting that Senator Doherty was being held responsible for this appointment:

As a matter of fact, Doherty is really not so much to blame as to Navin's appointment as were some of the other senators, especially Senator Michael H. Moriarty of Crystal Falls. As a matter of fact, Senator Doherty personally opposed the idea of having Navin appointed, and in private conversations declared his belief that it was a poor policy for the Republican party. "The most I did on the matter of Navin's appointment," said he, "was to canvass the senators to learn how they stood, and I used neither persuasion nor coercion to get any man's vote. In fact, if the screws had been put on hard several more votes could have been obtained."

Doherty said his action in voting and working for Navin was dictated simply by his desire to uphold the administration of Governor Bliss.

Senator Moriarty was present when Doherty was talking and he acquiesced in what Doherty said. "I worked much harder to get Navin confirmed," he said, "than did Senator Doherty. I was brought up in Hudson, Mich., and knew Tom Navin in his boyhood. I knew him well. He was my friend, and if I had had thirty-two votes I should have given them all to him. He suffered enough for his crime while he was in prison. His sister, his father and his mother died, and he was certainly made to feel his position."

"It was I who got Senator Burns of Grand Rapids to get in line for Navin. Senator Doherty had nothing to do with it."

Senator Moriarty, who thus offers to take to himself the responsibility for Navin's confirmation in the senate, is a fine-looking man about forty years old. Though raised in the lower part of the state, he is now a resident of the upper peninsula, and is considered a man of some means. He is soft-mannered, but frank, an generous to a fault. As indicated by his talk he will not acknowledge that any just criticism may be offered for Navin's appointment.